

ISACESCU, Dimitrie A.; PAUCESCU, Stelian D.

Studies in the field of furfurole. XV. The Cannizzaro mixed heterogenous reaction furfurole and formaldehyde (I). Studii cerc chim 8 no.2:339-358 '60. (EEAI 10:2)

1. Centrul de cercetari chimice al Academiei R.P.R., Sectorul schimbatori de ioni, Bucuresti. 2. Membru corespondent al Academiei R.P.R.; Comitetul de redactie, Studii si cercetari de chimie (for Isacescu)  
(Furaldehyde) (Cannizzaro reaction) (Formaldehyde)

ISACESCU, D. A.; STEFANESCU, D.; URSU, Victoria

Oxidasic and peroxidasic action. VII, Study of the blue complex obtained from catalase, hemin, or ferrous sulfate with benzidine in the presence of hydrogen peroxide, by means of infrared rays, radioactive isotopes, and electronic microscopy. Studii cerc chim 8 no.3:419-429 '60.  
(EEAI 10:9)

1. Facultatea de farmacie, Laboratorul de biochimie, Bucuresti.
2. Membru corespondent al Academiei R.P.R.; Comitetul de redactie, Studii si cercetari de chimie (for Isacescu).

(Oxidases)	(Peroxidases)	(Complex compounds)
(Catalase)	(Hemins)	(Iron sulfates)
(Benzidine)	(Infrared rays)	(Hydrogen peroxide) (Iron)

ISAGESCU, Dimitrie A.; PAUCESCU, Stelian

Studies in the field of furfurole. XX. The Cannizzaro reaction in the formation of furfurole-phenol resins. Studii cerc chim 9 no.1: 115-122 '61. (EEAI 10:9)

1. Centrul de cercetari chimice al Academiei R.P.R., Bucuresti.
2. Membru corespondent al Academiei R.P.R.; Comitetul de redactie, STUDII SI CERGETARI DE CHIMIE(for Isacescu).

(Cannizzaro reaction) (Furaldehyde) (Phenols)

ISACESCU, Dimitrie A.; IONESCU, I. V.

Studies in the field of furfurole. XXI. Relations between the factors determining the obtainment of stratified materials on the basis of furfurole-phenol resins and their physicomachanical properties.

I. Influence of the resin drop point and the contents in hexamethylene-  
tramine on stratified textile materials. Studii cerc chim 9 no.13  
123-137 '61. (EEAI 10:9)

1. Centrul de cercetari chimice al Academiei R.P.R., Sectorul fizico-  
chimia rasililor de furfurool, Bucuresti. 2. Membru corespondent al  
Academiei R.P.R.; Comitetul de redactie, STUDII SI CERCETARI DE  
CHIMIE (for Isacescu).

(Plastics) (Strength of materials) (Furaldehyde)  
(Hexamethylenetetramine)

ISACHSCU, D.; BILLER, S.; ORADEANU, T.; DUPU, M.

A microstructural study of beech plywood impregnated with furfurole-phenolic resin. *Analele chimie* 16 no.1:73-96 Ja-Mr '61.  
(KEAI 10:9)

(Beech) (Plywood) (Impregnating materials)  
(Furaldehyde) (Phenols) (Gums and resins, Synthetic)

ISACESCU, D.A.; IONESCU, I.V.

Relations between the obtaining elements of layers with  
furfurole-phenolic resin and their physicochemical  
properties. Pt.2. Studii cerc chim 11 no.1:37-48 '63.

1. Laboratorul de fizico-chimia macromoleculelor al  
Centrului de cercetari chimice al Academiei R.P.R.,  
Bucuresti. 2. Membru corespondent al Academiei R.P.R.  
(for Isacescu).

ISECHESKU, D. A. [Isacescu, D. A.] chlen-korr. Akademii RNR;  
IONESKU, I. V. [Ionescu, I. V.]

Crystallinity of polyethylene of a high and a very high  
molecular weight, induced by hydrostatic condensation.  
Rev chimie 7 no. 1: 257-266 '62.

1. Bucharest, Tsentr khimicheskikh issledovaniy Akademii  
RNR, Laboratoriya Fiziko-khimii vysokomolekulyarnykh  
soyedineniy.

ISACESCU, Dimitrie A.; GAVAT, Ion; STOICESCU, Calin; VASS, Cecilia; PETRUS,  
Ileana

Studies on furfural. Pt.26. Rev chimie Roum 10 no.3:219-231  
Mr '65.

1. Institute of Physical Chemistry, Rumanian Academy, Bucharest.  
Submitted June 23, 1964.

ISACESCU, Dimitrie A.; GAVAT, Ion; STOICESCU, Calin; VASS, Cecilia; PETRUS,  
Ileana

Studies in the furfural field. Pt.26. Studii cerc chim 14  
no.3:197-209 Mr '65.

1. Physical Chemistry Research Center, Rumanian Academy,  
18 Dumbrava Rosie St., Bucharest. Submitted June 23, 1964.

ISACESCU, Dimitrie A.; REBEDEA, Ingrid

Studies on furfural. Pt.28. Rev chimie Roum 10 no.3:245-255 Mr '65.

1. Laboratory of Physical Chemistry of Macromolecules, University of Bucharest. Submitted July 13, 1964.

ISACESCU, Dimitrie A.; GAVAT, Ion; IONESCU, Ion V.; STOICESCU, Galin

Studies in the furfural field. Pt.27. Studii cerc chim 14  
no.3:211-220 Mr '65.

1. Physical Chemistry Research Center, Rumanian Academy,  
18 Dumbrava Rosie St., Bucharest. Submitted June 23, 1964.

ISACESCU, Dumitrie A.; REBEDEA, Ingrid

Studies in the furfural field. Pt.28. Studii cerc chim 14 no.3:  
221-231 Mr '65.

1. Laboratory of Physical Chemistry of Macromolecules, University  
of Bucharest, 13 Bd. Republicii. Submitted July 13, 1964.

ISACESCU, Dimitrie A.; GAVAT, Ion; URSU, Victoria

Studies in the furfural field. Pt.29. Studii cerc chim 14  
no.3:233-243 Mr '65.

1. Physical Chemistry Research Center, Rumanian Academy,  
18 Dumbrava Rosie St., Bucharest. Submitted July 28, 1964.

ISACESCU, Dimitrie A.; GAVAT, Ion; STOICESCU, Galin; TONESCU, Ion V.

Studies on furfural. Pt.27. Rev chimie Roum 10 no.3:233-244 Mr '65.

1. Institute of Physical Chemistry, Rumanian Academy, Bucharest.  
Submitted June 23, 1964.

ISACESCU, Dimitrie A.; GAVAT, I.; URSU, Victoria

Studies on furfural. Pt.29. Rev chimie Roum 10 no.3:257-267 Mr '65.

1. Institute of Physical Chemistry, Rumanian Academy, Bucharest.  
Submitted July 28, 1964.

MURGULESCU, I.G.; ~~ISAGESCU, Dimitrie A.~~; TOMUS, E.; TOMUS, Florentina

Studies in the furfural field. Pt. 10. Studii cerc chim 14  
no.3:245-264 Mr '65.

1. Laboratory of Physical Chemistry of Macromolecules, University  
of Bucharest, 13 Bd. Republicii. Submitted July 13, 1964.

MURGULESCU, I.G.; ISACESCU, Dimitrie A.; TOMIS, E.; TOMIS, Florentina

Studies on furfural. Pt.30. Rev chimie Roum 10 no.3:269-  
285 Mr '65.

1. Laboratory of Physical Chemistry of Macromolecules, University  
of Bucharest. Submitted July 13, 1964.

18(5)

AUTHORS:

Vasil'yev, K. V., Candidate of Technical Sciences and  
Isachenko, A. A., Engineer

SOV/135-59-9-2/23

TITLE:

Heating by Plasma in Welding Processes

PERIODICAL:

Svarochnoye proizvodstvo, 1959, Nr 9, pp 5-6 (USSR)

ABSTRACT:

The authors state that though free plasma streams have found some use in welding techniques, they are little known yet. In these processes, the heating of the metal is realized by a partly deformed arc stream and an unformed stream of gas discharging plasma. For the production of the arc within the gas stream, auxiliary arc discharges were used which can be produced in the stream of argon between a tungsten electrode and a water cooled copper tip. As a result a 15-20 mm long bright cone-shaped tongue of argon plasma comes out of the tip-hole. The authors remark that the luminous plasma jet is surrounded by a non-luminous stream as a transitional stage of ionized and neutral gas (Fig 2). Fig 3 shows the effective power at different lengths of the argon plasma jet at a current of 165 A. Because of

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SOV/135-59-9-2/23

# Heating by Plasma in Welding Processes

its high temperatures, the plasma jet has a considerable melting power. Already at limited output power (8-10 KW) within the plasma jet, different metals can be melted, for instance steel, asbestos-cement, crystalline corundum (2050°C) carborundum (2200°C) and other others. The chemical composition of the plasma jet is mainly that of the gas in the arc. One can get plasma of one-atom or multi-atom gases: argon, nitrogen, hydrogen, helium, vapors of liquids (water) etc. The use of plasma heating for local treatment of non-electroconductive materials is being considered. There are 1 photograph, 3 graphs and 4 references, 2 of which are Soviet, 1 German and 1 English.

ASSOCIATION: VNIIAVTOGEN

*A-U. VII of Welding &*

*Autogenous Treatment of*

*Metals -*

*Moscow City Sovmarkhoz.*

Card 2/2

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S/788/60/000/006/004/004  
E202/E392

1.2300

**AUTHORS:** Vasil'yev, K.V., Candidate of Technical Sciences,  
Isachenko, A.A.

**TITLE:** Plasma heating in welding processes

**SOURCE:** Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut  
avtogennoy obrabotki metallov. Trudy. no.6. 1960.  
Kislородnaya rezka, metallizatsiya, payka. 147-150

**TEXT:** VNIIAVTOGEN has evaluated in detail electric-arc welding  
of the constricted-arc plasma type, particularly from the point  
of view of metal-cutting. The type of plasma torch used  
employed a high-frequency priming arc which started a low-voltage,  
high-current arc. It was found that with suitable cooling of the  
constricting nozzle, current of the order of 180 to 300 A might be  
used. The geometry of the resulting plasma jet was studied in  
relation to the type of gas used. With increased rates of gas  
flow the visible part of the jet became extended and approached  
a cylindrical shape. A similar result was obtained by constricting  
further the diameter of the nozzle exit. The jet diameter and  
length increased considerably when diatomic gases (e.g. N<sub>2</sub>, H<sub>2</sub>).  
Card 1/2

44918

S/788/62/000/008/001/003

26.2311

**AUTHORS:** Vasil'yev, K. V., Candidate of Technical Sciences; Isachenko, A. A.,  
Engineer.

**TITLE:** On the employment of plasma heating in welding processes.

**SOURCE:** Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut avtogennoy obrabotki metallov. Trudy. no. 8. 1962. Gazoflyusovaya naplavka i svarka, kislorodnaya rezka, metallizatsiya. pp. 55-71.

**TEXT:** A plasma is defined as highly ionized matter ( $10^9$ - $10^{10}$  charged particles per  $\text{cm}^3$ ), a mixture of normal molecules, atoms, + (at times also -) ions, electrons, and photons. High temperature (HT) or electron impact (EI) in a gaseous discharge may be the source of ionization. In the HT case the plasma is isothermal and self-perpetuating. In the EI case the plasma is not in isothermal (hence, not in thermal) equilibrium and requires a continuous perturbation source. In either plasma the mean + and - space charge at each point of space is fully compensated by electrostatic interaction. In nonisothermal plasma, the temperature (T) relationships are  $T_{\text{electron gas}} > T_{\text{ion gas}} > T_{\text{neutral molecules}}$ . The electrons and ions have a Maxwellian velocity distribution according to their T. The plasma is electrically conductive and magnetically active. The internal plasma magnetic field has a destabilizing effect; external fields compress and stabilize the plasma. The internal energy of the plasma particles is released in the form of thermal and photon fluxes

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On the employment of plasma heating in welding processes. S/788/62/000/008/001/003

upon the recombination of the charged particles into atoms, and also as an effect of bremsstrahlung. 16 to 20,000°K can be achieved with comparatively simple means. Whereas an interelectrode discharge in a quiescent gas contains primarily electrode-material vapors, a gas may be blown through the arc, whereupon a plasma consisting of the ionized gas is formed. Ar, He, and N plasma jets were experimentally achieved. Pure H plasma jets could not be formed because of combustive flame formation; H plasma jets with some Ar content could be formed. Great difficulties were encountered in attempts to obtain plasmas of active gases, such as air, O, and H-O mixtures (water vapor), because the W, graphite, and other electrode materials are too readily oxidizable. Short-term formation of "water plasma" was achieved by means similar to the Gerdien burner (Usp. fiz. n., v. 55, no. 4, 1955, 595). An electrode-feed system, designed to overcome the oxidization problem, resulted in an overly complex and cumbersome mechanism. Not even a short-term plasma formation could be obtained with O plasma because of electrode combustion. Carborundum electrodes, such as are used in underwater O-arc cutting, were most effective. Arc starting was facilitated by steel surfacing (0.15-0.20 mm thick) of the carborundum electrodes. The arc lasted for minutes at a time, but its shape was far from cylindrical. Nevertheless, an O-plasma jet employed to cut a low-C steel plate, 200x40x10 mm, placed on edge lengthwise, created a blind wedge-shaped cutting gap 28-30 mm deep. O-Ar-mixture plasma jets were also obtained. Increase in gas-flow rate improves the arc plasma and the service life of the gas nozzle. The

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On the employment of plasma heating in welding processes. S/788/62/000/008/001/003

arc voltage is increased thereby; it rises more sharply in diatomic gases, also more greatly in a H-Ar mixture than in an Ar-N mixture. A neutral Ar plasma, generated by a d.c. arc, was tested in butt-welding of 1.5 and 3 mm thick 1X18H9T (1Kh18N9T) stainless-steel plate. The motion of the burner was strictly longitudinal. Welding-rod welding in this fashion was found impracticable because of inadequate heating of the metal to which the welding-rod droplets should, but did not, adhere. On the one hand lateral oscillation was introduced, whereas, on the other hand, welding was done without additional welding material. In the latter instance, metallographic examination and X-ray transillumination revealed a weld with normal dendritic structure and only a narrow temperature-affected zone with enlarged austenitic grains. Welding rate: 3.1 m/min for the 1.5-mm sheet; 2.6 m/min for the 3-mm sheet. Laboratory tests were also made with fine-particle deposition of W and Al oxide on a 1Kh18N9T plate 10 mm thick by feeding the Al-oxide powder into the plasma-forming gas jet. The difficulties of that method must be weighed against the promise afforded by A.N. Shashkovich's method, wherein a hard-alloy paste (using an organic-glue or waterglass binder) is painted onto the metal surface and is then melted and welded on by means of a plasma jet. An assessment of the energy balance of plasma-welding equipment is attempted with full recognition of the difficulty created by the practically unknown temperature of the plasma. Theoretical calculations and supporting experimental

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On the employment of plasma heating in welding processes. S/788/62/000/008/001/003

findings afford the following conclusions: 1. Ordinary penetrating arcs formed in externally water-cooled tips are energywise substantially preferable over plasma jets of equal energy input. 2. The current in a penetrating arc must be consistent with the diameter of the exit channel of the tip that forms it. Beyond a certain limit, an increase in arc current worsens the heat propagation in a penetrating arc; in a plasma-forming arc the energy balance is not altered thereby. 3. An increase in gas-flow rate improves the energy utilization in the arc which, at small gas-flow rates, deteriorates sharply in plasma-generating arcs. Fairly simple means can be developed to utilize the heat emitted in the arc plasma in welding. It is possible to intensify the heat rejection of the arc discharge so as to increase the heat content of the arc plasma. Two extreme variants, in which maximum energy localization is either directed upon the active spot on the welding object or contained within the free plasma jet, are covered by a feeding system (circuitry shown), which permits coverage of a large number of intermediate schemes. The seven basic welding operations are examined and tabulated with reference to (1) the object of the desired heat delivery, (2) the character of the heat delivery, (3) the character of the gas flow, and (4) the requirements relative to shielding of the welded object. All of these findings apply equally to the welding of nonmetallic materials, with the proviso that electrically nonconductive materials can be heated only by the free plasma jet. In metals welding the heat

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E 41359-65 EWT(d)/EPA(s)-2/EWT(m)/EWA(d)/EWP(v)/T/EWP(t)/EWP(x)/EWP(h)/  
EWP(b)/EWP(l)/EWA(c) Pf-4 JD/HM S/2788/04/000/011/0067/0031  
ACCESSION NR: AT4049835

AUTHOR: Vasil'yev, K.V. (Candidate of technical sciences); Isachenko, A.A. (Engineer)

TITLE: The geometry of the plasma-arc cut

SOURCE: Vsesoyuznyy nauchno-issledovatel'skiy institut avtogennoy obrabotki metallov.  
Trudy, no. 11, 1964. Kislorodnaya i gazoelektricheskaya rezka, napyleniye (Oxygen,  
gas and electric cutting, spraying), 67-81

TOPIC TAGS: metal cutting, plasma torch, metal cut edge, metal cut width, metal cut  
formula, cutting automation

ABSTRACT: Additional refinement of the technology of plasma arc cutting requires  
information on the accuracy obtainable under conditions of a maximally automated process.  
The formulas expressing the relationship between amount of cut-off metal per unit of time,  
the parameters of the cutting process and the conditions of interaction of the arc with  
the processed object are presented and discussed. The formulas were developed from  
earlier ones established for rotating objects. Form and width of a plasma-arc cut were  
shown to depend on the intensity of heat transport from arc to the object and are functions  
of current, stress, rate of cutting and conditions of interaction of the arc with the metal  
to be cut. The composition of the operative gas and its expenditure had a smaller effect

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ACCESSION NR: AT4049835

on the form and width of the cut. Cutting was found to go through 3 stages which influence the size and form of the cut. Tests performed on 25-26 mm thick sheets and the equipment used are described. The measurement accuracy was 0.1 mm; the electrical parameters were controlled to an accuracy of 1.6 v. Nitrogen or a mixture of argon with hydrogen was used for the torch. Results from tests showed that the production of a vertical cut is contingent upon a cutting rate of 0.3-0.5 m/min, not to exceed 0.8 m/min. A lower rate leads to a widening of the lower part of the cut, a higher rate to widening of its upper part. The edges of aluminum cut by the plasma torch will not be parallel, due to the non-homogeneous conditions of heat transfer in the sections at various depths. Increasing the current will lead to widening of the cut, particularly its lower part. An optimum was found at 500-520 amps. for a practically vertical cut with smooth edges. Raising the jet above the metal will also lead to cut widening, particularly at its upper part. Optimal results were obtained, e.g., for a 380-400 amp. current, a gas consumption of 39-41 liters/min (35% hydrogen in the mixture), a cutting rate of 0.51-0.55 m/min and a height of 0.5-1.0 mm of the jet above the metal. Orig. art. has: 6 formulas, 9 figures and 2 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MM, IE

NO REF SOV: 002

OTHER: 000

Card

2/2

VASIL'YEV, K. V.; ISACHENKO, A. A.; SEGALOVA, O. I. engineer

"Study of the Plasma Arc Cut"

paper presented at 18th Annual Assembly, Intl Inst of Welding, Paris, 5-10 Jul 1965.

ISACHENKO, A.G.

Physical Geography

Physico-geographical boundaries of the Russian plain., Izv. Vses. geog. obshch., 84,  
no. 1, 1952.

Monthly List of Russian Accessions, Library of Congress, March 1952. UNCLASSIFIED.

ISACHENKO, A. G.

3  
② Geo

Meteorological Abst.  
Vol. 5 No. 1  
Jan. 1954  
Aqueous Vapor and  
Hydrometeors

5.1-254 551.579.5:631.4  
Isachenko, A. G., Rukovodiaschie geografscheskie idei G.N. Vysotskogo i ego vklad v geografscheskuiu teoriiu. [The leading geographical ideas of G. N. Vysotskii and his contribution to geographical theory.] *Vsesoiuznoe Geograficheskoe Obshchestvo, S.S.S.R., Izvestiia*, 84(5):478-489, Sept./Oct. 1952. bibliog. p. 489. DLC—G. N. Vysotskii's principal interests were in the fields of soil science, geobotany and forestry and in their interrelationships. In his studies on the zonal distribution of soil and plants in the Soviet Union, he analyzed the relationship between soil moisture content as a result of precipitation, evaporation and soil leaching on the one hand and soil characteristics and vegetation on the other. This article gives an extensive account of Vysotskii's contributions to geographic theory and includes a list of his most important writings. *Subject Headings*: 1. Soil moisture 2. Soils 3. Vegetation zones 4. Geographical theory 5. Bibliographies 6. Vysotskii, G. N.—I.L.D.

ISACHENKO, A. G.

Georgiy Nikolayevich Vysotskiy, vydayushchiysya otechestvennyy geograf  
G. N. Vysotskiy, outstanding native geographer Leningrad, 1953.  
60 p. illus., Port.  
At head of title: Leningrad. Universitet.

SO: #/5  
917.621  
.V917

ISACHENKO, A. G.

Fundamental problems of physical geography. Leningrad, 1953. 381 p. maps.

ISACHENKO, A.G.

[Fundamental problems of physical geography] Osnovnye voprosy  
fizicheskoi geografii. Leningrad, 1953. 391 p. (MIRA 7:5)  
(Physical geography)

GERASIMOV, I.P. [reviewer]; ISACHENKO, A.G. [author].

"Fundamental problems of physical geography." A.G. Isachenko. Reviewed by  
I.P. Gerasimov. Izv. AN SSSR Ser. geog. no. 6:72-73 N-D '53. (MIRA 6:12)  
(Physical geography) (Isachenko, A.D.)

ISACHENKO, A. G.

246762

USSR/Geography - Classifications

Jan/Feb 53

"The Subject of Physical Geography," A.G. Isachenko

"Iz V-S Geograf Obshch" Vol 85, No 1, pp 60-72

Discussion of: (1) present state of problems of physical geography; (2) problem of whether a geographical medium is a subject for physical geography; (3) geographical shell and geographical complexes; and (4) physical geography's relation to the geographical sciences.

246762

ISACHENKO, A.G.

S.S. Neustruev's ideas in the field of geography. (1874-1928). Izv. Vses.  
geog. ob-va 85 no.3:300-302 My-Je '53. (MLRA 6:6)

1. Leningradskiy universitet.

(Soil classification)

BERG, Lev Semenovich; ISACHENKO, A.G., kandidat geograficheskikh nauk, redaktor; MARGOLIN, Y.E., redaktor; KOSHELEVA, S.M., tekhnicheskii redaktor.

[Natural zones of the U.S.S.R.] Priroda SSSR. Moskva, Gos. izd-vo geogr.lit-ry, 1955. 494 p. (MLRA 9:1)  
(Russia--Physical geography)

ISACHENKO, A.G.

Modern general geographic world atlases. Izv.Vses.geog.ob-va  
no.3:244-258 My-Je '55. (MLRA 8:9)  
(Atlases)

ISACHENKO, A.G.

~~Viktor Borisovich Sochava.~~ Izv.Vses.geog.ob-va no.3:290-292  
My-Je '55. (MLRA 8:9)

(Sochava, Viktor Borisovich, 1905-)

ISACHENKO, A.G.

Tasks and methods of physiographic research. Izv.Vses.geog.ob-va 87  
no.5:413-428 S-0'55.

(MIRA 8:12)

(Physical geography)

*Isachenko, A. G.*

14-57-7-14386

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 7,  
p 18 (USSR)

AUTHOR: Isachenko, A. G.

TITLE: The Genetic Principle in Physical Geography (Geneticheskiy printsip v fizicheskoy geografii)

PERIODICAL: Chteniya pamyati L. S. Berga. Vols 1-111. 1952-1954.  
Moscow-Leningrad, AN SSSR, 1956, pp 33-37

ABSTRACT: The following questions are discussed in this article: the idea of the ~~Do~~Kuchayev geographical school, the laws which govern natural developments on the earth's surface, the broad division of the earth into zones which can be treated genetically, the geographical landscape as a genetic zone, and the genetic principle involved in dividing and classifying of landscapes. The author formulates the genetic principle of zonal division as follows: 1) landscapes divisions express

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The Genetic Principle in Physical Geography (Cont.)

objectively the essential differences resulting from various historical developments of complexes; 2) every unit of a division at any stage of development represents a genetically uniform territory, but the degree and nature of this uniformity are not identical when units are at different stages of development; 3) each unit of a division is of a definite geological age, and the complexes of a higher taxonomic order occupy a greater time interval than the lesser taxonomic categories; units of lower categories of the division are produced by variations in the complexes of a higher taxonomic order at the latest stages of geological history; 4) the basic (original) unit of division is constituted by a geographical landscape which comprizes a genetically most uniform and geologically a most recent territory developed under homogeneous zonal and azonal conditions. The Russian Plain is used to illustrate the genetic principle of zonal divisions. A bibliography of 37 titles is included.

Card 2/2

N. M. Bogdanova

ISACHENKO, A.G.

Taiga of the Karelian Isthmus. Izv.Vses.geog.ob-va 88 no.2:  
164-167 Mr-Ap '56. (MLBA 9:8)  
(Karelian Isthmus--Taiga)

ISACHENKO, A.G.

"Facies" or "geoform"? Izv. Vses. Geog. ob-va 89 no.2:178-179  
Mr-Ap '57. (MLBA 10:6)  
(Geography--Terminology)

ISACHENKO, A. G.

First general geographical expedition; from the history of the  
geographical science at Saint Petersburg--Leningrad University.  
Vest. LGU 12 no.18:90-98 '57. (MIRA 11:3)  
(Gorkiy Province--Geographical research)

ISACHEENKO, A.G.

Importance of the study of land forms to the national economy and  
basic principles of its program. Nauk zap. L'viv. un. 40:16-26 '57.  
(MIRA 11:6)

1. Gosudarstvennyy universitet im. A.A. Zhdanova, Leningrad.  
(Physical geography)

TSYS', P.N.; KALESNIK, S.V.; SOKOLOV, N.N.; CHOCHIA, N.S.; PROTOPOPOV, A.P.; ZABELIN, I.M.; GVOZDETSKIY, N.A.; YEFREMOV, Yu.K.; KARA-MOSKO, A.S.; KOZLOV, I.V.; SOLNTSEV, N.A.; ISACHENKO, A.G.; ARMAND, D.L.; MIROSHNICHENKO, V.P.; PETROV, K.M.; KAZAKOVA, O.N.; MIKHAYLOV, N.I.; PARMUZIN, Yu.P.; GERENCHUK, K.I.; MIL'KOV, F.N.; TARASOV, F.V.; NIKOLAYEV, V.N.; SOBOLEV, L.N.; RYBIN, N.N.; DUMIN, B.Ya.; IGNAT'YEV, G.M.; MEL'KHEYEV, M.N.; SANEBLIDZE, M.S.; VASIL'YEVA, I.V.; PEREVALOV, V.A.; BASALIKAS, A.B.

Discussion at the conference on studying land forms. Nauk. zap. L'viv. un., 40:231-267 '57. (MIRA 11:6)

1. L'vovskiy gosudarstvennyy universitet (for TSys', Gerenchuk, Dumin).
2. Laboratoriya aerometodov AN SSSR, Leningrad (for Sokolov, Mirosnichenko, Petrov).
3. Institut geografii AN SSSR, Moskva (for Armand, Sobolev).
4. Gosudarstvennyy universitet, Voronezh (for Mil'kov, Tarasov).
5. Leningradskiy gosudarstvennyy universitet (for Chochia, Isachenko, Kazakova).
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9. Gosudarstvennyy pedagogicheskiy institut im. V.I. Lenina, Moskva (for Vasil'yeva).
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14. Gosudarstvennyy institut im. Kapsukasa, Vil'nyus (for Basalikas).
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16. Srednyaya shkola No.13, Kiyev (for Kara-Mosko). (Physical geography)

ISACHENKO, Anatoliy Grigor'yevich; KHELAREV, L.A., red.; VODOLAGINA, S.D.,  
tekhn.red.

[Physicogeographical mapping] Fiziko-geograficheskoe kartirovanie.  
[Leningrad] Izd-vo Leningr. univ. Pt.1. 1958. 231 p. (MIRA 11:4)  
(Cartography)

ISACHENKO, A.G.

Academician L.S. Berg's works on the history of geography.  
Vest.LGU 13 no.18:171-172 '58. (MIRA 12:1)  
(Geography—History)

AUTHOR: Isachenko, A.G. SOV-12-90-4-5/22

TITLE: About the "Zonal Conception" of K.I. Fatkin (O "zonal'noy kontseptsii" K.I. Fatkina)

PERIODICAL: Izvestiya Vsesoyuznogo geograficheskogo obshchestva, 1958, Vol 90, Nr 4, pp 349-351 (USSR)

ABSTRACT: K.I. Fatkin published the article "On Geographical Zonality of the Dry Land" in the 1957, Nr 2 issue of this periodical. He attacked some of the findings of A.G. Isachenko, author of the present article. The author, in his turn, attacks the point of view of Fatkin, that the main factor of zone and landscape forming is the climate; all other factors are of lesser importance. There are 5 Soviet references.

1. Physical geography--USSR

Card 1/1

3(5)

SOV/12-91-2-1/21

AUTHOR: Isachenko, A.G.

TITLE: A Physical Map of the North Western Russian Plain.  
Scale 1 : 1,000,000

PERIODICAL: Izvestiya vsesoyuznogo geograficheskogo obshchestva,  
1959, Nr 2, pp 109-119 (USSR)

ABSTRACT: The author stresses the importance of the physical map for the study of the geographical elements such as: the configuration, structure and composition of the soil and its strata underground; the climatic and hydrological conditions; vegetation and the animal life. The physical map also serves as a basis for national economic planning, including agriculture and rough material production. It appears that the scale of 1 : 1,000,000 is the most practical one, because so many other maps are produced in that scale. A physical map covering the northwest Russian Plain (i.e. Leningrad, Novgorod and Pskov oblasts) should give: relief, hydro-climatic conditions, soil com-

Card 1/2

SOV/12-91-2-1/21

A Physical Map of the North Western Russian Plan. Scale  
1 : 1,000,000

position and vegetative cover. These elements should be obtained from existing topographical and other maps of a larger scale (say 1 : 100,000); from the field survey and from the aerophotography. The larger the scale of the map in preparation, the greater is the need of field survey. Landmarks (urochishcha) should be surveyed on the spot. So far, there is no known classification of the landmarks, nor is there a recognized system of marking them on the maps. The author gives a table of 30 types of landmarks such as lakes, swamps, fir-tree forests, granite strata etc, in the N.W. Russian plain and suggests a system of marking them on the map. There are 2 maps and 2 Soviet references.

Card 2/2

P. SE I BOOK EXPLOITATION

SOV/3920

Isachenko, Anatoliy Grigor'yevich

Fiziko-geograficheskoye kartirovaniye, ch. 2 (Physicogeographical Mapping, Pt. 2) [Leningrad] Izd-vo Leningradskogo univ., 1960. 228 p. Errata slip inserted. 1,300 copies printed.

Sponsoring Agency: Leningrad. Universitet.

Ed.: N.I. Busorgina; Tech. Ed.: Ye.G. Zhukova.

**PURPOSE:** The book is intended for geographers. It may also be used by students taking courses in physical geography, geomorphology, and cartography.

**COVERAGE:** This is a second part of a handbook on physicogeographical maps. It deals with special types of maps: geological, geomorphological, climatological, geobotanical, hydrological, etc. In describing various types of maps, the author gives some general information (definition, classification of maps, their scientific

Card 1/5

ISACHENKO, A.G.

Concerning the term "type of locality" in physical geography in  
connection with landscape systematics and mapping. Vest.LGU 15  
no.12:100-109 '60. (MIRA 13:6)  
(Physical geography)

ISACHENKO, A.G. ; PAVLOV, A.A. ; SEMEVSIIY, V.N.

Results of the third conference of the All-Union Geographical  
Society. Vest. LGU 15 no.18:153-156 '60. (MIRA 13:9)  
(Geographical societies)

ISACHENKO, A.G.

On the so-called typological concept of land forms. Izv.Vses.  
geog.ob-va 92 no.4:339-345 J1-Ag '60. (MIRA 13:8)  
(Physical geography)

ISACHENKO, A.G.

"Physical geography of the U.S.S.R."; general survey, European part  
of the U.S.S.R., Caucasus Concise lecture course by F.N. Milkov, N.A.  
Gvozdetkii. Reviewed by A.G. Isachenko. Vest. Mosk. un. Ser.5:  
Geog 15 no.2:76-79 Mr-Apr '60. (MIRA 13:9)  
(Physical geography) (Milkov, F.N.)  
(Gvozdetkii, N.A.)

PREOBRAZHEFSKIY, Arkadiy Ivanovich, prof., doktor tekhn. nauk; SUKHOV, Vladimir Ivanovich, prof., doktor tekhn. nauk; BILICH, Yuliya Sergeyevna, dotsent, kand. tekhn. nauk; ISACHENKO, Anatoliy Grigor'yevich, dots., kand. geogr. nauk; KARAVAYEVA, Zoya Fedorovna; BASHLAVINA, Galina Nikolayevna, starshiy nauchnyy sotr., kand. tekhn. nauk; NAUMOV, A.V., red.; SHAMAROVA, T.A., red. izd-va; SUNGUROV, V.S., tekhn. red.

[Composition and editing of special maps] Sostavlenie i redaktirovanie spetsial'nykh kart. n.p. Izd-vo geodez. lit-ry, 1961. 319 p. (MIRA 15:2)

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(Cartography)

ISACHENKO, A.G.

Principles of scaling the legend of medium-scale landform maps.  
Mat. Kom. po land. kart. no.1:3-9 '61. (MIRA 16:10)

ISACHENKO, Anatoliy Grigor'yevich; KULAGINA, T.I., red.; KISELEVA,  
L.I., tekhn. red.

[Physicogeographical mapping] Fiziko-geograficheskoe kartirova-  
nie. Leningrad, Izd-vo Leningr. univ. Pt.3. 1961. 267 p.  
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(Physical geography—Maps)

ISACHENKO, A.G.

Methodological problems in the division of the northwestern part of  
the Russian Plain into physicogeographical regions. Vop. geog.  
no.55:6-17 '61. (MIRA 15:1)  
(Russia, Northwestern--Physical geography)

ISACHENKO, A.G.; KALESNIK, S.V.

In reference to N.A.Gvozdetskii's article "In defense of a standard  
landform concept." Izv.Vses.geog.ob-va 93 no.3:246-249 My-Je '61.  
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(Landforms) (Gvozdetskii, N.A.)

ISACHENKO, Anatoliy Grigor'yevich; KULAGINA, T.I., red.; ZHUKOVA,  
Ye.G., tekhn. red.

[Landform science and physicogeographical regionalization;  
textbook for correspondence school students] Uchenie o land-  
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sobie dlia studentov-zaochnikov. Leningrad, Izd-vo Leningr.  
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(Landforms)

ISACHENKO, A.G.

Basic principles of physico-geographical regionalization and problems  
in developing the system of taxonomic units. Uch. zap. LGU no.317:  
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(Physical geography)

ISACHENKO, A.G.

Present-day problems of the study of landforms; results of the  
5th All-Union Conference on the Study of Landforms. Vest.LGU  
17 no.6:82-92 '62. (MIRA 15:4)  
(Landforms--Congresses)

ISACHENKO, A.G.

"Natural regionalization of northern Kazakhstan (Kustanay, North Kazakhstan, Kokchetav, Akmolinsk, and Pavlodar Provinces)". Reviewed by A.G.Isachenko. Izv. Vses. geog. ob-va 94 no.3:261-263 My-Je '62. (MIRA 15:7)

(Kazakhstan--Physical geography)

GVOZDETSKIY, N. A.; ISACHENKO, A. G.

Physicogeographical regionalization. Izv. Vses. geog. ob-va  
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(Physical geography)

GVOZDETKI, N.A. [Gvozdetskiy, N.A.]; ISACENKO, A.G. [Isachenko, A.G.]

Physical and geographical problem of the division into districts.  
Analele geol geogr 17 no.3:94-99 J1-S '63.

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Discussions of combined mapping at the Second Scientific Conference  
of Geographers of Siberia and the Far East. Izv.Vses.geog.ob-va  
95 no.3:294-296 My-Je '61 (MIRA 16:8)  
(Geology, Economic--Maps)

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"Landscape maps of the USSR."

report presented at the 20th Intl Geographical Cong, 6 Jul-11 Aug 64, London.

GVOZDETSKIY, N.A., red.; ISACHENKO, A.G., red.; CHUPAKHINA, V.M.,  
red.

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ISACHENKO, A. A. (Engineer) (VNIItavtogen)

"Investigation of the geometry of plasma-arc cutting"

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JPRS24,651 19 May 64

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[Physicogeographical regionalization of the Northwestern  
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ISACHENKO, A.G.; SOLNTSEV, N.A.

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PERIODICAL: Tr. Leningr. politekhn. in-ta, 1958, Nr 195, pp 23-33

ABSTRACT: Bibliographic entry.

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